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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,000	12/30/2003	Jin-Woong Kim	51876P547	9967
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BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			EXAMINER MULL, FRED H	
			ART UNIT	PAPER NUMBER

3662

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,000

Applicant(s)

KIM, JIN-WOONG

Examiner

Fred H. Mull

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim(s) 1 is/are objected to under 37 CFR 1.75. The claim(s) recites "a request for location information which includes coordinates of geographical features adjacent to the GPS terminal from the GPS terminal" in lines 7-9. From this wording, it is unclear whether the request includes the coordinates, or the location information being requested includes the coordinates. The examiner suggests replacing "which" with --, where the location information--. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4-11, and 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Pechatnikov.

In regard to claim 1, Pechatnikov discloses:

receiving coordinates of current location of a GPS terminal (¶ 8, 14, 25; 202, Fig. 2A) and a request for location information (¶ 137), where the location information

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includes coordinates of geographical features adjacent to the GPS terminal from the GPS terminal (§ 137, 112, 158);

generating location information having coordinates of the geographical features adjacent to the GPS terminal (§ 137, 112, 158); and

transmitting the location information to the GPS terminal (§ 7, 137, 112, 158).

In regard to claim 2, Pechatnikov further discloses the geographical features include roads and buildings (§ 137, 112).

In regard to claim 7, Pechatnikov further discloses generating graphical location information based on the location information (Fig. 4).

In regard to claim 8, Pechatnikov further discloses the geographical features include location of buildings, figure of buildings, location of roads and figure of roads (§ 137, 112).

In regard to claim 4, Pechatnikov discloses:

receiving coordinates of current location of a GPS terminal from the GPS terminal (§ 8, 14, 25; 202, Fig. 2A);

generating basic location information which includes coordinates of main geographical features adjacent to a GPS terminal in response to a request for basic location information from the GPS terminal (§ 137, 112, 158);

transmitting the basic location information to the GPS terminal (§ 7, 137, 112, 158);

generating additional location information which includes coordinates of detailed geographical features adjacent to the GPS terminal in response to a request for additional location information from the GPS terminal (§ 219, 151); and

transmitting additional location information to the GPS terminal (§ 219, 151).

In regard to claims 5 and 10, Pechatnikov further discloses the main geographical features include location of main buildings, figure of main buildings, location of main roads and figure of main roads (§ 137, 112).

In regard to claims 6 and 11, Pechatnikov further discloses the detailed geographical features include location of buildings, figure of buildings, location of roads and figure of roads (§ 137, 112).

In regard to claim 9, Pechatnikov further discloses outputting graphical basic location information on a display unit, and outputting graphical additional location information on the display unit (Fig. 4; § 219, 151).

In regard to claim 13, Pechatnikov discloses:

a GPS server for receiving the coordinates of current location of a GPS mobile terminal (§ 7; Fig. 2A), generating location information which includes coordinates of geographical features adjacent to the GPS terminal through retrieval of map data base, and transmitting the location information to the GPS terminal (§ 137, 112, 158); and

at least one GPS terminal for transmitting coordinates of its current location, requesting the location information to the GPS server, receiving the location information

from the GPS server, generating graphical location information based on the location information, and displaying the graphical location information (§ 8, 14, 25; Fig. 4).

In regard to claim 14, Pechatnikov further discloses the geographical features include roads and buildings (§ 137, 112).

In regard to claim 15, Pechatnikov discloses:

a receiver for receiving a location information request message and coordinates of the current location of a GPS terminal from a GPS terminal (antenna tower to let of 204, Fig. 2A);

a map database for storing map information; a transmitter for transmitting coordinates of geographical features adjacent to the GPS terminal (206); and

a processor for retrieving the map database based on the coordinates of the current location of the GPS terminal (204; § 90, 94).

In regard to claim 16, Pechatnikov further discloses the geographical features include roads and buildings (§ 137, 112).

In regard to claim 17, Pechatnikov discloses:

a GPS receiver for receiving a GPS signal from GPS satellites (860, Fig. 8B);

a GPS processor for calculating coordinates of the current location of the GPS terminal using the GPS signal (860, Fig. 8B);

a transmitter for transmitting a location information request message and coordinates of the current location of the GPS terminal (852);

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a receiver for receiving coordinates of geographical features adjacent to the GPS terminal from the GPS server (852); and

a location information processor for generating graphical location information based on the coordinates of geographical features and displaying the graphical location information (850, 854).

In regard to claim 18, Pechatnikov further discloses the geographical features include roads and buildings (§ 137, 112).

3. Claims 1-2, 4-11, and 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Maruyama.

In regard to claim 1, Maruyama discloses:

receiving coordinates of current location of a GPS terminal (col. 5, lines 51-53) and a request for location information, where the location information includes coordinates of geographical features adjacent to the GPS terminal from the GPS terminal (col. 5, lines 31-62);

generating location information having coordinates of the geographical features adjacent to the GPS terminal (Fig. 4, 8; col. 9, lines 24-27); and

transmitting the location information to the GPS terminal (Fig. 4, 8, 9; col. 9, lines 24-27).

In regard to claim 2, Maruyama further discloses the geographical features include roads and buildings (Fig. 4, 8).

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In regard to claim 7, Maruyama further discloses generating graphical location information based on the location information (Fig. 4, 8).

In regard to claim 8, Maruyama further discloses the geographical features include location of buildings, figure of buildings, location of roads and figure of roads (Fig. 4, 8).

In regard to claim 4, Maruyama discloses:

receiving coordinates of current location of a GPS terminal from the GPS terminal (col. 5, lines 51-53);

generating basic location information which includes coordinates of main geographical features adjacent to a GPS terminal in response to a request for basic location information from the GPS terminal (Fig. 4, 8; col. 5, lines 31-62; col. 9, lines 24-27);

transmitting the basic location information to the GPS terminal (Fig. 4, 8, 9; col. 5, lines 31-62; col. 9, lines 24-27);

generating additional location information which includes coordinates of detailed geographical features adjacent to the GPS terminal in response to a request for additional location information from the GPS terminal (col. 5, lines 62-64); and

transmitting additional location information to the GPS terminal (col. 5, lines 62-64).

In regard to claims 5 and 10, Maruyama further discloses the main geographical features include location of main buildings, figure of main buildings, location of main roads and figure of main roads (Fig. 4, 8).

In regard to claims 6 and 11, Maruyama further discloses the detailed geographical features include location of buildings, figure of buildings, location of roads and figure of roads (Fig. 4, 8).

In regard to claim 9, Maruyama further discloses outputting graphical basic location information on a display unit, and outputting graphical additional location information on the display unit (Fig. 4, 8).

In regard to claim 13, Maruyama discloses:

a GPS server for receiving the coordinates of current location of a GPS mobile terminal (67, Fig. 9), generating location information which includes coordinates of geographical features adjacent to the GPS terminal through retrieval of map data base (Fig. 4, 8; col. 9, lines 24-27; 67c, Fig. 9), and transmitting the location information to the GPS terminal (62-61); and

at least one GPS terminal for transmitting coordinates of its current location, requesting the location information to the GPS server, receiving the location information from the GPS server, generating graphical location information based on the location information, and displaying the graphical location information (61).

In regard to claim 14, Maruyama further discloses the geographical features include roads and buildings (Fig. 4, 8).

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In regard to claim 15, Maruyama discloses:

a receiver for receiving a location information request message and coordinates of the current location of a GPS terminal from a GPS terminal (62);

a map database for storing map information (67c);

a transmitter for transmitting coordinates of geographical features adjacent to the GPS terminal (62); and

a processor for retrieving the map database based on the coordinates of the current location of the GPS terminal (67a).

In regard to claim 16, Maruyama further discloses the geographical features include roads and buildings (Fig. 4, 8).

In regard to claim 17, Maruyama discloses:

a GPS receiver for receiving a GPS signal from GPS satellites (77, Fig. 10; col. 2, lines 31-33);

a GPS processor for calculating coordinates of the current location of the GPS terminal using the GPS signal (77);

a transmitter for transmitting a location information request message and coordinates of the current location of the GPS terminal (76);

a receiver for receiving coordinates of geographical features adjacent to the GPS terminal from the GPS server (76); and

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a location information processor for generating graphical location information based on the coordinates of geographical features and displaying the graphical location information (71, 72).

In regard to claim 18, Maruyama further discloses the geographical features include roads and buildings (Fig. 4, 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pechatnikov in view of Murray.

Pechatnikov discloses the need to transmit data over a low-speed wireless link (¶ 7).

Pechatnikov fails to disclose the coordinate of the geographical feature includes a difference value between the coordinate of the GPS terminal and the coordinate of the geographical feature.

Murray discloses the coordinate of geographical features includes a difference value between the coordinate of the GPS terminal and the coordinate of the geographical feature (col. 2, lines 57-67). Murray further discloses this allows a smaller message size (col. 2, lines 44-49), which reduces the time it takes to receiver the

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message, thus reducing the amount of time needed to display the features, and saving battery power due to lesser time in communication mode.

It would have been obvious to include the coordinate difference feature in Murray into the invention of Pechatnikov in order to reduce communication time, which is important in view of Pechatnikov's low-speed wireless link, and to save battery power to the mobile device.

5. Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama in view of Murray.

Maruyama fails to disclose the coordinate of the geographical feature includes a difference value between the coordinate of the GPS terminal and the coordinate of the geographical feature.

Murray discloses the coordinate of geographical features includes a difference value between the coordinate of the GPS terminal and the coordinate of the geographical feature (col. 2, lines 57-67). Murray further discloses this allows a smaller message size (col. 2, lines 44-49), which reduces the time it takes to receive the message, thus reducing the amount of time needed to display the features, and saving battery power due to lesser time in communication mode.

It would have been obvious to include the coordinate difference feature in Murray into the invention of Maruyama in order to reduce communication time, increase the display update rate, and to save battery power to the mobile device.

6. The examiner also finds the following reference(s) relevant:

Suetsugu (col. 8 and 21-22) and Lee (col. 11-12), which also disclose the user of coordinate differences to provide the coordinates of a feature.

Applicant is encouraged to consider these documents in formulating their response (if one is required) to this action, in order to expedite prosecution of this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred H. Mull whose telephone number is 703-305-1250. The examiner can normally be reached on M-F 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 703-360-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Fred H. Mull
Examiner
Art Unit 3662

fhm


GREGORY C. ISSING
PRIMARY EXAMINER